



Hosseinian Yousefkhani et al.

Taxonomic revision of the spider geckos of the genus *Agamura* sensu lato Blanford, 1874 (Sauria: Gekkonidae) in the Iranian Plateau

Table S1. List of samples with locality and GenBank numbers. Specimens that don't have any accession numbers only examined in morphological analyses, but other missed accession numbers related to the specimens not worked correctly for three genes.

ID	Museum Number	Species	Country	Locality	Longitude	Latitude	Geobank accession number		
							12S	cyt b	mcl r
1	SUHC 1938	<i>Cyrtopodion persepolense</i>	Iran	Fars province- Persepolis area	52.88	29.94	MH973293	MH976446	MH976486
2	SUHC 1967	<i>Cyrtopodion persepolense</i>	Iran	Fars province- Persepolis area	52.89	29.93	MH973300	MH976453	-
3	SUHC 1968	<i>Cyrtopodion persepolense</i>	Iran	Fars province- Persepolis area	52.89	29.93	MH973294	MH976447	MH976487
4	SUHC 1969	<i>Cyrtopodion persepolense</i>	Iran	Fars province- Persepolis area	52.89	29.93	MH973295	MH976448	MH976488
5	SUHC 1970	<i>Cyrtopodion persepolense</i>	Iran	Fars province- Persepolis area	52.88	29.94	-	-	-
6	SUHC 1971	<i>Cyrtopodion persepolense</i>	Iran	Fars province- Persepolis area	52.88	29.94	MH973296	MH976449	MH976489
7	SUHC 1418	<i>Cyrtopodion agamuroides</i>	Iran	Fars province-Kazeroun- Pol Abgine	51.77	29.55	MH973310	MH976463	-
8	SUHC 1419	<i>Cyrtopodion agamuroides</i>	Iran	Fars province-Kazeroun- Pol Abgine	51.77	29.55	MH973311	MH976464	MH976497
9	SUHC 1510	<i>Cyrtopodion agamuroides</i>	Iran	Fars Province-Shiraz-Bamoo National Park	52.72	29.70	-	-	-
10	SUHC 1559	<i>Cyrtopodion agamuroides</i>	Iran	Fars province-Jahrom	53.37	28.55	-	-	-
11	SUHC 1560	<i>Cyrtopodion agamuroides</i>	Iran	Fars province-Jahrom	53.37	28.55	-	-	-
12	SUHC 1954	<i>Cyrtopodion agamuroides</i>	Iran	Fars province-55 Km South of Yasuj	51.60	30.21	-	-	-
13	SUHC 1748	<i>Cyrtopodion gastrophole</i>	Iran	Fars province-Farashband	52.13	28.84	MH973297	MH976450	MH976490
14	SUHC 1781	<i>Cyrtopodion gastrophole</i>	Iran	Fars province-Mohr	52.85	27.53	MH973298	MH976451	MH976491
15	SUHC 1783	<i>Cyrtopodion gastrophole</i>	Iran	Fars province-Mohr	52.88	27.51	MH973299	MH976452	MH976492
16	SUHC 5909	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.7	30.49	MH973301	MH976454	MH976493
17	SUHC 5910	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.7	30.49	MH973302	MH976455	MH976494
18	SUHC 5911	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.81	30.57	MH973303	MH976456	-
19	SUHC 5912	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.81	30.57		MH976457	-
20	SUHC 5913	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.81	30.57		MH976458	
21	SUHC 5915	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.73	30.62		MH976459	-
22	SUHC 5916	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.73	30.62	MH973307	MH976460	MH976496
23	SUHC 5918	<i>Rhinogekko misonnei</i>	Iran	Kerman province-Shahdad-20 km on the road to Kalouts	57.73	30.62	MH973308	MH976461	-
24	SUHC 6133	<i>Agamura kermanensis</i>	Iran	Kerman province-Rabor	56.87	29.25	MH973288	MH976441	MH976481

ID	Museum Number	Species	Country	Locality	Longitude	Latitude	Geobank accession number		
							12S	cyt b	mcl r
26	SUHC 6139	Agamura ker-manensis	Iran	Kerman province-Sirjan	56.03	29.54	MH973309	MH976462	-
27	SUHC 580	Agamura cruralis	Iran	Khorasan Razavi province-Khaf	60.29	34.42	MH973269	MH976422	MH976466
28	SUHC 584	Agamura cruralis	Iran	Khorasan Razavi province-Khaf	60.45	34.31	MH973267	MH976420	-
29	SUHC 5947	Agamura cruralis	Iran	Sistan & Baluchistan province-Zahedan	60.53	29.41	MH973280	MH976433	MH976473
30	SUHC 5948	Agamura cruralis	Iran	Sistan & Baluchistan province-Zahedan	60.53	29.41	MH973281	MH976434	MH976474
31	SUHC 6140	Agamura cruralis	Pakistan	Baluchistan province -Kharan	65.32	28.68	-	-	-
32	SUHC 6141	Agamura cruralis	Pakistan	Baluchistan province -Nushki	66.07	29.45	MH973290	MH976443	MH976483
33	SUHC 6142	Agamura cruralis	Pakistan	Baluchistan province -Nushki	66.07	29.45	MH973291	MH976444	MH976484
34	SUHC 6601	Agamura persica	Iran	Markazi province- Saveh	50.32	35.15	-	-	-
35	SUHC 6602	Agamura persica	Iran	Markazi province- Saveh	50.32	35.15	-	-	-
36	SUHC 2064	Agamura persica	Iran	Fars province- 26 km north of Safashahr	53.06	30.43	-	-	-
37	SUHC 799	Agamura persica	Iran	Semnan province-Shahroud	55.41	36.31	MH973268	MH976421	MH976465
38	SUHC 1403	Agamura persica	Iran	South Khorasan province-Ferdows	57.97	34.06	MH973270	MH976423	MH976467
39	SUHC 1460	Agamura persica	Iran	Khorasan Razavi province-Sabzevar	57.04	35.83	MH973271	MH976424	MH976468
40	SUHC 1533	Agamura persica	Iran	Fars province-Ghatroy-Bahram Gor National Park	54.60	29.22	MH973272	MH976425	MH976469
41	SUHC 1589	Agamura persica	Iran	Semnan province-Kavir National Park	52.16	34.67	MH973273	MH976426	-
42	SUHC 4412	Agamura persica	Iran	Kerman province-Zarand	56.56	30.95	MH973275	MH976428	MH976471
43	SUHC 4413	Agamura persica	Iran	Kerman province-Zarand	56.56	30.95	MH973276	MH976429	MH976472
44	SUHC 4973	Agamura persica	Iran	Yazd province-Ardakan-Near Chak Chak	54.43	32.46	MH973278	MH976431	-
45	SUHC 4984	Agamura persica	Iran	Yazd province-Ardakan-83 km south of Haji Abad	54.68	32.90	MH973279	MH976432	-
46	SUHC 6050	Agamura persica	Iran	South Khorasan province-Nehbandan-Shousf	60.37	31.89	MH973283	MH976436	MH976476
47	SUHC 6063	Agamura persica	Iran	Qom province-Qom	50.81	34.62	MH973284	MH976437	MH976477
48	SUHC 6065	Agamura persica	Iran	Qom province-Qom	50.81	34.62	MH973286	MH976439	MH976479
49	SUHC 4972	Agamura persica	Iran	Yazd province- Dare Anjir protected area	54.66	32.19	MH973277	MH976430	-
50	SUHC 6020	Agamura persica	Iran	South Khorasan province-Nehbandan-Shousf	60.37	31.89	MH973282	MH976435	MH976475
51	SUHC 6126	Agamura persica	Iran	Isfahan province-30 km north of Morch-e Khort	51.75	33.30	MH973287	MH976440	MH976480
52	SUHC 311	Agamura persica	Iran	Qom province-Kamar Kooh	50.66	34.67	-	-	-
53	SUHC 312	Agamura persica	Iran	Qom province-near Sakafchegan	50.55	34.53	MH973292	MH976445	MH976485
54	SUHC 2394	Agamura persica	Iran	Qom province-40 km SW of Qom	50.76	34.54	MH973274	MH976427	MH976470
55	SUHC 4691	Agamura persica	Iran	Isfahan Province, On the road from Kashan to Natanz	51.75	33.61	-	-	-
56	SUHC 6064	Agamura persica	Iran	Qom province-Qom	50.81	34.62	MH973285	MH976438	MH976478
57	-----	Cyrtopodion systanense	Iran	Sistan & Baluchestan province	-----	-----	EU589175	EU589197	-
58	-----	Crossobamon orientalis			-----	-----	DQ852715	KJ794371	-

Table S2. All records of studied species with their precise coordinates in Iranian Plateau

Number	Species	Latitude	Longitude
1	<i>Agamura cruralis</i>	34.33	52.25
2	<i>Agamura cruralis</i>	34.55	52.23
3	<i>Agamura cruralis</i>	34.72	52.17
4	<i>Agamura cruralis</i>	35.27	52.20
5	<i>Agamura cruralis</i>	34.65	50.90
6	<i>Agamura cruralis</i>	34.77	52.20
7	<i>Agamura cruralis</i>	34.73	52.19
8	<i>Agamura cruralis</i>	34.63	52.27
9	<i>Agamura cruralis</i>	32.67	51.63
10	<i>Agamura cruralis</i>	33.22	51.75
11	<i>Agamura cruralis</i>	32.45	51.55
12	<i>Agamura cruralis</i>	31.17	52.62
13	<i>Agamura cruralis</i>	26.75	54.66
14	<i>Agamura kermanensis</i>	30.07	57.13
15	<i>Agamura kermanensis</i>	30.28	57.08
16	<i>Agamura persica</i>	25.72	61.42
17	<i>Agamura persica</i>	28.17	61.18
18	<i>Agamura persica</i>	29.47	60.68
19	<i>Agamura persica</i>	35.27	59.22
20	<i>Agamura kermanensis</i>	31.24	57.24
21	<i>Agamura kermanensis</i>	31.24	57.24
22	<i>Agamura kermanensis</i>	31.24	57.24
23	<i>Agamura cruralis</i>	32.39	51.24
24	<i>Agamura cruralis</i>	32.29	50.92
25	<i>Agamura cruralis</i>	32.18	52.12
26	<i>Agamura cruralis</i>	32.18	52.12
27	<i>Agamura cruralis</i>	32.18	52.12
28	<i>Agamura cruralis</i>	32.18	52.12
29	<i>Agamura cruralis</i>	33.17	51.77
30	<i>Agamura cruralis</i>	33.17	51.77
31	<i>Agamura cruralis</i>	33.17	51.77
32	<i>Agamura cruralis</i>	34.65	50.88
33	<i>Agamura cruralis</i>	34.65	50.88
34	<i>Agamura cruralis</i>	34.65	50.88
35	<i>Agamura cruralis</i>	34.65	50.88
36	<i>Agamura cruralis</i>	34.65	50.88
37	<i>Agamura cruralis</i>	34.65	50.88
38	<i>Agamura cruralis</i>	34.65	50.88
39	<i>Agamura cruralis</i>	34.65	50.88
40	<i>Agamura cruralis</i>	34.65	50.88
41	<i>Agamura cruralis</i>	34.65	50.88
42	<i>Agamura cruralis</i>	34.65	50.88
43	<i>Agamura cruralis</i>	34.65	50.88
44	<i>Agamura cruralis</i>	34.65	50.88
45	<i>Agamura cruralis</i>	34.65	50.88
46	<i>Agamura cruralis</i>	34.65	50.88
47	<i>Agamura cruralis</i>	34.65	50.88
48	<i>Agamura cruralis</i>	34.65	50.88
49	<i>Agamura cruralis</i>	34.65	50.88
50	<i>Agamura cruralis</i>	34.65	50.88
51	<i>Agamura cruralis</i>	34.65	50.88
52	<i>Agamura cruralis</i>	34.65	50.88
53	<i>Agamura cruralis</i>	34.65	50.88

Number	Species	Latitude	Longitude
54	<i>Agamura cruralis</i>	34.65	50.88
55	<i>Agamura cruralis</i>	34.65	50.88
56	<i>Agamura cruralis</i>	34.65	50.88
57	<i>Agamura cruralis</i>	34.65	50.88
58	<i>Agamura cruralis</i>	34.65	50.88
59	<i>Agamura cruralis</i>	34.65	50.88
60	<i>Agamura cruralis</i>	34.65	50.88
61	<i>Agamura cruralis</i>	34.65	50.88
62	<i>Agamura cruralis</i>	34.65	50.88
63	<i>Agamura cruralis</i>	34.65	50.88
64	<i>Agamura cruralis</i>	34.65	50.88
65	<i>Agamura cruralis</i>	34.65	50.88
66	<i>Agamura cruralis</i>	34.65	50.88
67	<i>Agamura cruralis</i>	34.65	50.88
68	<i>Agamura cruralis</i>	34.65	50.88
69	<i>Agamura persica</i>	29.47	60.68
70	<i>Agamura cruralis</i>	34.73	52.17
71	<i>Agamura cruralis</i>	32.36	51.94
72	<i>Agamura cruralis</i>	34.77	52.17
73	<i>Agamura cruralis</i>	34.77	52.17
74	<i>Agamura cruralis</i>	35.79	56.04
75	<i>Agamura cruralis</i>	32.23	54.38
76	<i>Agamura cruralis</i>	33.53	51.87
77	<i>Agamura kermanensis</i>	31.02	55.04
78	<i>Agamura cruralis</i>	33.17	51.77
79	<i>Agamura cruralis</i>	33.17	51.77
80	<i>Agamura cruralis</i>	33.17	51.77
81	<i>Agamura cruralis</i>	34.65	50.88
82	<i>Agamura cruralis</i>	34.65	50.88
83	<i>Agamura cruralis</i>	34.65	50.88
84	<i>Agamura cruralis</i>	34.65	50.88
85	<i>Agamura cruralis</i>	34.65	50.88
86	<i>Agamura cruralis</i>	34.65	50.88
87	<i>Agamura cruralis</i>	34.65	50.88
88	<i>Agamura cruralis</i>	34.65	50.88
89	<i>Agamura cruralis</i>	34.65	50.88
90	<i>Agamura cruralis</i>	34.65	50.88
91	<i>Agamura cruralis</i>	34.65	50.88
92	<i>Agamura cruralis</i>	34.65	50.88
93	<i>Agamura cruralis</i>	34.65	50.88
94	<i>Agamura cruralis</i>	34.65	50.88
95	<i>Agamura cruralis</i>	34.65	50.88
96	<i>Agamura cruralis</i>	34.65	50.88
97	<i>Agamura cruralis</i>	34.65	50.88
98	<i>Agamura cruralis</i>	34.65	50.88
99	<i>Agamura cruralis</i>	34.65	50.88
100	<i>Agamura cruralis</i>	34.65	50.88
101	<i>Agamura cruralis</i>	34.65	50.88
102	<i>Agamura cruralis</i>	34.65	50.88
103	<i>Agamura cruralis</i>	34.65	50.88
104	<i>Agamura cruralis</i>	34.65	50.88
105	<i>Agamura cruralis</i>	34.65	50.88
106	<i>Agamura cruralis</i>	34.65	50.88
107	<i>Agamura cruralis</i>	34.65	50.88

Number	Species	Latitude	Longitude
108	<i>Agamura cruralis</i>	34.65	50.88
109	<i>Agamura cruralis</i>	34.65	50.88
110	<i>Agamura cruralis</i>	34.65	50.88
111	<i>Agamura cruralis</i>	34.65	50.88
112	<i>Agamura cruralis</i>	34.65	50.88
113	<i>Agamura cruralis</i>	34.65	50.88
114	<i>Agamura cruralis</i>	34.65	50.88
115	<i>Agamura cruralis</i>	34.65	50.88
116	<i>Agamura cruralis</i>	34.65	50.88
117	<i>Agamura cruralis</i>	34.65	50.88
118	<i>Agamura persica</i>	29.47	60.68
119	<i>Agamura cruralis</i>	34.73	52.17
120	<i>Agamura cruralis</i>	32.36	51.94
121	<i>Agamura cruralis</i>	34.77	52.17
122	<i>Agamura cruralis</i>	34.77	52.17
123	<i>Agamura cruralis</i>	35.79	56.04
124	<i>Agamura cruralis</i>	32.70	55.37
125	<i>Agamura cruralis</i>	34.73	52.17
126	<i>Agamura cruralis</i>	31.93	51.88
127	<i>Agamura cruralis</i>	33.99	51.29
128	<i>Agamura cruralis</i>	33.10	51.46
129	<i>Agamura cruralis</i>	31.59	52.11
130	<i>Agamura kermanensis</i>	30.27	57.06
131	<i>Agamura kermanensis</i>	30.24	57.04
132	<i>Agamura kermanensis</i>	30.28	57.08
133	<i>Agamura persica</i>	26.10	61.78
134	<i>Agamura persica</i>	29.37	58.80
135	<i>Agamura cruralis</i>	32.34	53.90
136	<i>Agamura cruralis</i>	34.18	58.38
137	<i>Agamura cruralis</i>	34.18	58.38
138	<i>Agamura cruralis</i>	36.22	57.65
139	<i>Agamura cruralis</i>	29.35	54.64
140	<i>Agamura cruralis</i>	34.73	52.60
141	<i>Agamura cruralis</i>	34.73	52.60
142	<i>Agamura persica</i>	34.57	60.13
143	<i>Agamura cruralis</i>	33.61	51.79
144	<i>Cyrtopodion gastropholis</i>	29.67	50.42
145	<i>Cyrtopodion gastropholis</i>	29.47	51.35
146	<i>Cyrtopodion gastropholis</i>	29.65	50.45
147	<i>Cyrtopodion gastropholis</i>	29.29	52.99
148	<i>Cyrtopodion gastropholis</i>	29.29	52.99
149	<i>Cyrtopodion gastropholis</i>	27.55	56.40
150	<i>Cyrtopodion gastropholis</i>	27.63	56.22
151	<i>Cyrtopodion gastropholis</i>	30.36	51.15
152	<i>Cyrtopodion gastropholis</i>	29.57	50.52
153	<i>Cyrtopodion gastropholis</i>	29.63	51.65
154	<i>Cyrtopodion gastropholis</i>	29.67	50.42
155	<i>Cyrtopodion gastropholis</i>	29.43	51.30
156	<i>Cyrtopodion gastropholis</i>	28.84	51.70
157	<i>Cyrtopodion gastropholis</i>	28.94	53.63
158	<i>Cyrtopodion gastropholis</i>	27.36	56.34
159	<i>Cyrtopodion gastropholis</i>	27.33	56.57
160	<i>Cyrtopodion gastropholis</i>	28.94	51.89
161	<i>Cyrtopodion gastropholis</i>	28.94	51.89

Number	Species	Latitude	Longitude
162	<i>Cyrtopodion gastropholis</i>	27.81	52.53
163	<i>Cyrtopodion gastropholis</i>	27.81	52.53
164	<i>Cyrtopodion gastropholis</i>	27.81	52.53
165	<i>Cyrtopodion gastropholis</i>	27.52	52.86
166	<i>Cyrtopodion gastropholis</i>	27.52	52.86
167	<i>Cyrtopodion gastropholis</i>	27.53	52.97
168	<i>Cyrtopodion gastropholis</i>	27.53	52.97
169	<i>Cyrtopodion gastropholis</i>	27.53	52.97
170	<i>Rhinogekko misonnei</i>	29.00	58.55
171	<i>Rhinogekko misonnei</i>	31.67	58.35
172	<i>Rhinogekko misonnei</i>	30.22	58.78
173	<i>Rhinogekko misonnei</i>	30.58	57.85
174	<i>Rhinogekko misonnei</i>	30.55	57.86
175	<i>Rhinogekko misonnei</i>	30.50	57.74
176	<i>Cyrtopodion persepolense</i>	29.92	52.88
177	<i>Cyrtopodion persepolense</i>	29.94	52.89
178	<i>Cyrtopodion persepolense</i>	29.95	52.90
179	<i>Cyrtopodion persepolense</i>	29.91	52.86
180	<i>Cyrtopodion persepolense</i>	29.93	52.92
181	<i>Cyrtopodion agamuroides</i>	30.08	52.92
182	<i>Cyrtopodion agamuroides</i>	27.55	56.40
183	<i>Cyrtopodion agamuroides</i>	26.74	61.07
184	<i>Cyrtopodion agamuroides</i>	26.07	57.30
185	<i>Cyrtopodion agamuroides</i>	28.93	52.54
186	<i>Cyrtopodion agamuroides</i>	29.53	51.68
187	<i>Cyrtopodion agamuroides</i>	29.55	51.65
188	<i>Cyrtopodion agamuroides</i>	28.92	52.52
189	<i>Cyrtopodion agamuroides</i>	27.18	56.28

Table S3. Bioclimatic variables used in this study to elaborate the models

Variable	Definition
BIO1	Annual Mean Temperature
BIO2	Mean Diurnal Range [Mean of monthly (max temp - min temp)]
BIO3	Isothermality $[(\text{var}2 / \text{var}7) * 100]$
BIO4	Temperature Seasonality (standard deviation * 100)
BIO5	Maximum Temperature of Warmest Month
BIO6	Minimum Temperature of Coldest Month
BIO7	Temperature Annual Range (var5 - var6)
BIO8	Mean Temperature of Wettest Quarter
BIO9	Mean Temperature of Driest Quarter
BIO10	Mean Temperature of Warmest Quarter
BIO11	Mean Temperature of Coldest Quarter
BIO12	Annual Precipitation
BIO13	Precipitation of Wettest Month
BIO14	Precipitation of Driest Month
BIO15	Precipitation Seasonality (standard deviation / mean)
BIO16	Precipitation of Wettest Quarter
BIO17	Precipitation of Driest Quarter
BIO18	Precipitation of Warmest Quarter
BIO19	Precipitation of Coldest Quarter
Slope	Slope

Table S4. All metric and meristic characters that examined in this study with their definition

Character	Definition
SVL	Snout-Vent Length
HL	Head length (from tympanum to tip of rostrum)
HW	Head width (maximum distance between tympani)
HH	Head height (straight-line dorsiventral distance between apex of head and ventral surface of lower jaw)
SL	Snout length (eye–nostril distance)
IO	Interorbital distance
EED	Distance from eye to tympanum
WPW	Widest lateral dimension of abdomen
FHD	Distance between forelimb and hindlimb
FLL	Forelimb length
HLL	Hind limb length
NSS	Number of supralabial scales
NIS	Number of infralabial scales
ION	Number of interorbital scales (except palpebral fold scales)
LOS	loreal scales (between eye and nostril, in a single longitudinal row)
POS	Number of scales from postnasal to occiput (in a single longitudinal row)
NPS	Number of postmental scales
NSA	Number of scales across widest part of abdomen
NPV	Number of scales between postmental scales and vent
NTW	Number of dorsal tubercles at widest lateral dimension of thorax
NTP	Number of tubercles in a paravertebral row (from neck to hindlimb)
NAT	Number of scales around a tubercle (forming a circumference)
NTV	Number of scales that separate two adjacent tubercles (longitudinal)
NTH	Number of scales that separate two adjacent tubercles
NPP	Number of preanal pores
SLT	Subdigital lamella under fourth toe
NUT	Number of scales under the tail

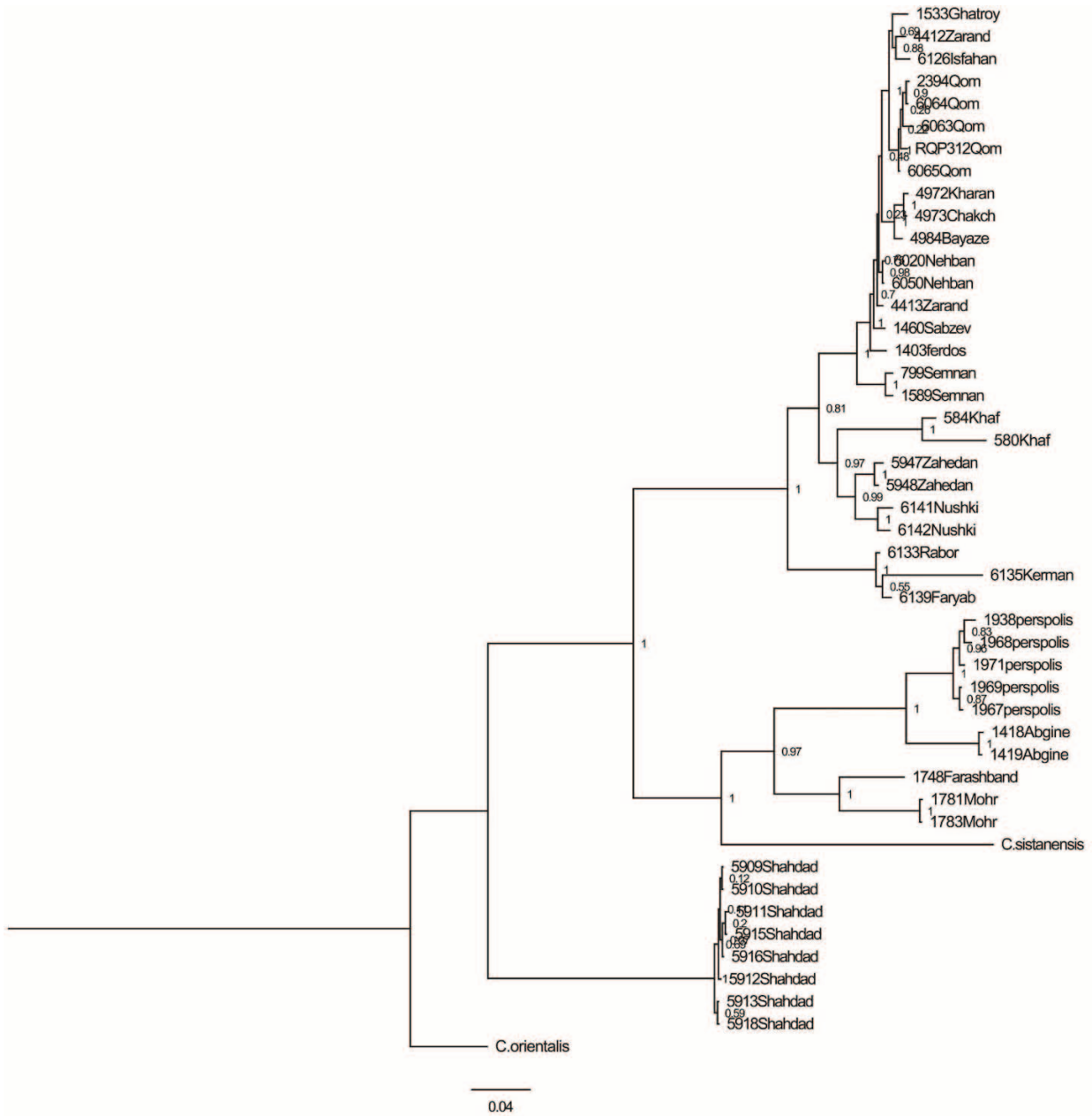


Figure S1. Phylogenetic tree from concatenated mtDNA dataset in this study that results from Bayesian analysis. The numbers next to the nodes, indicated to the posterior probabilities.

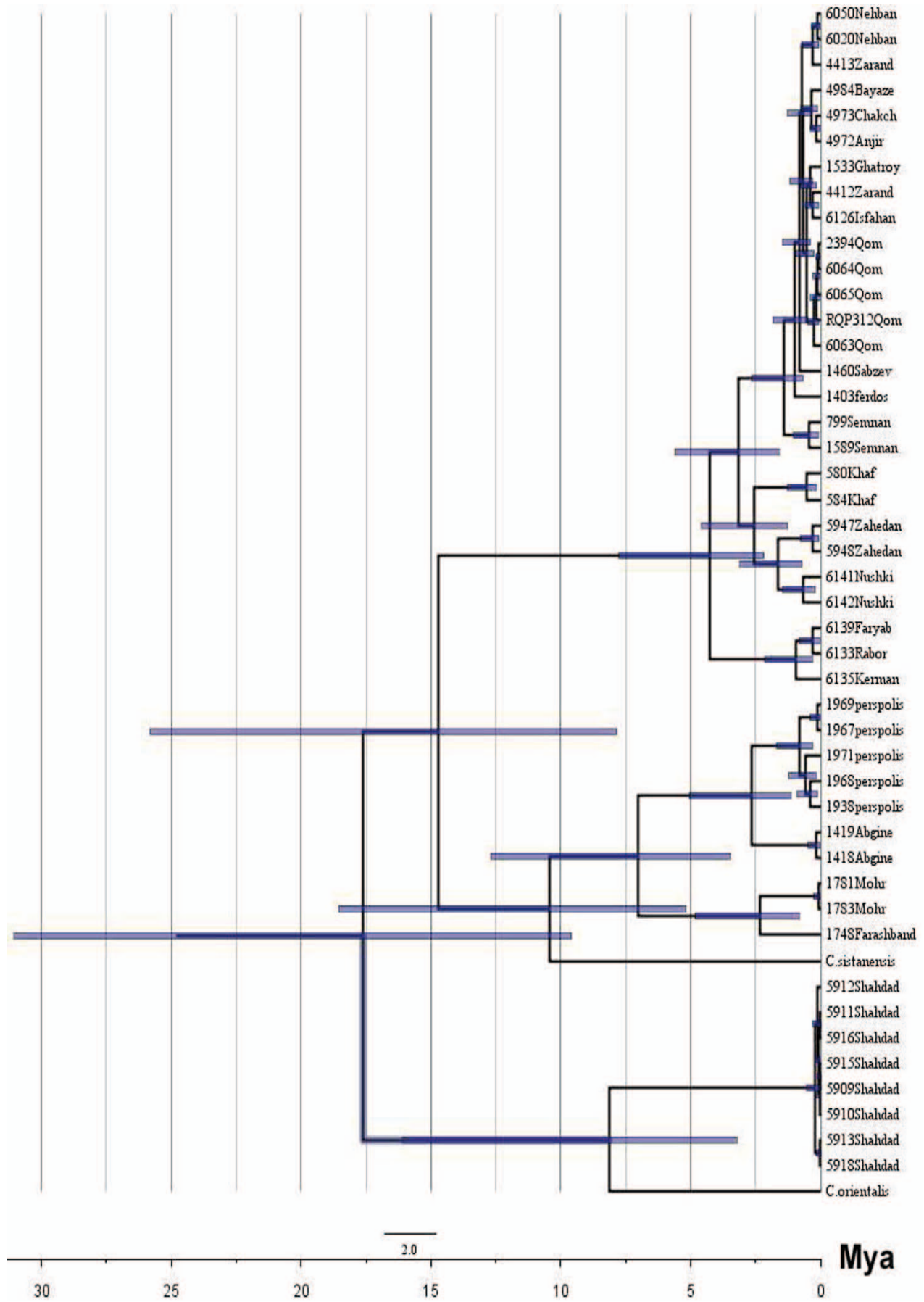


Figure S2. The BEAST consensus tree of concatenated mtDNA dataset that represent the divergence time between different clades of angular-toed geckos in the Iranian Plateau. (Mya; HPD 95% confidence interval bars at each node).

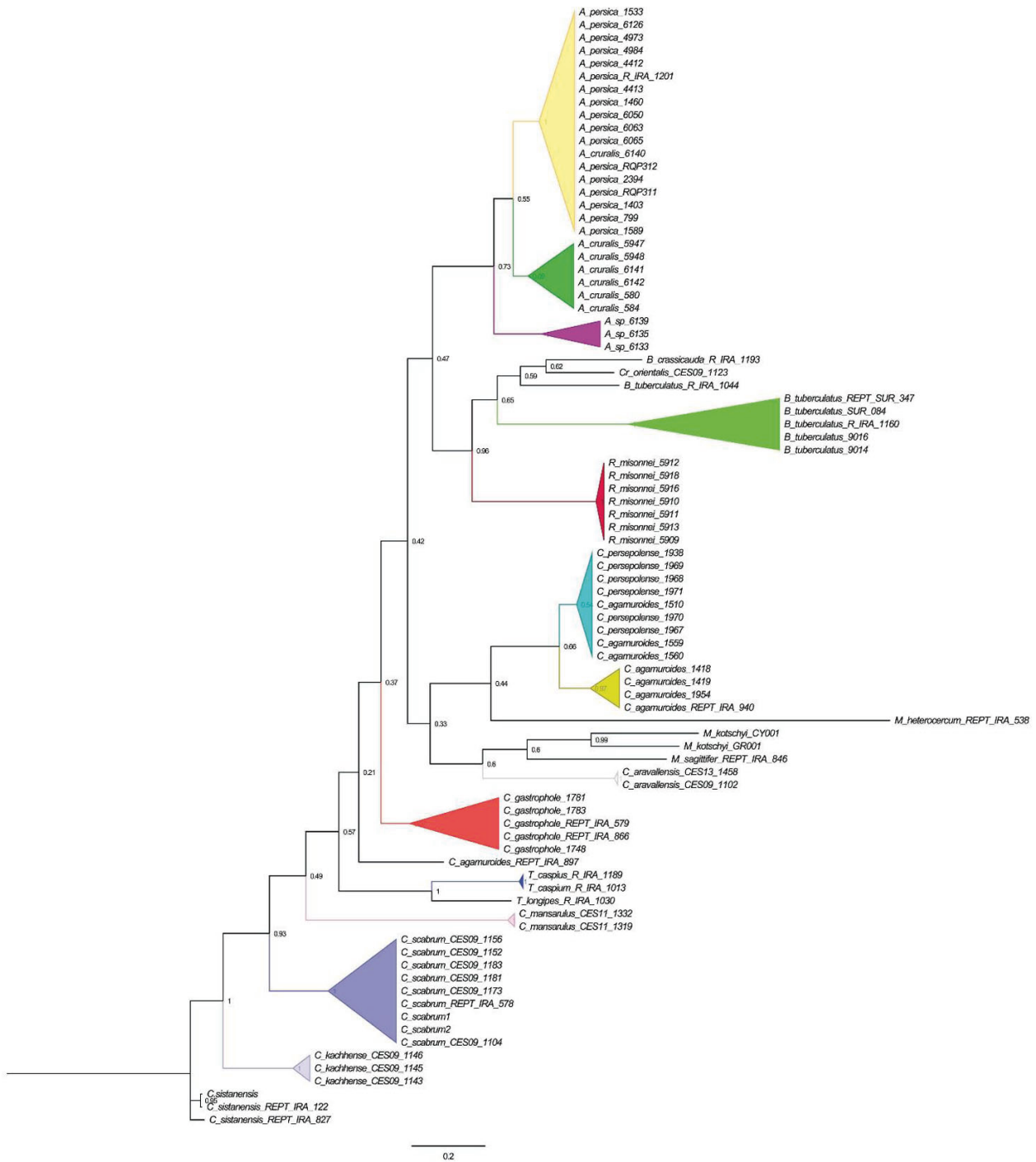


Figure S3. Phylogenetic tree from cytochrome *b* mtDNA gene fragment that results from Bayesian analysis

Result of combined:

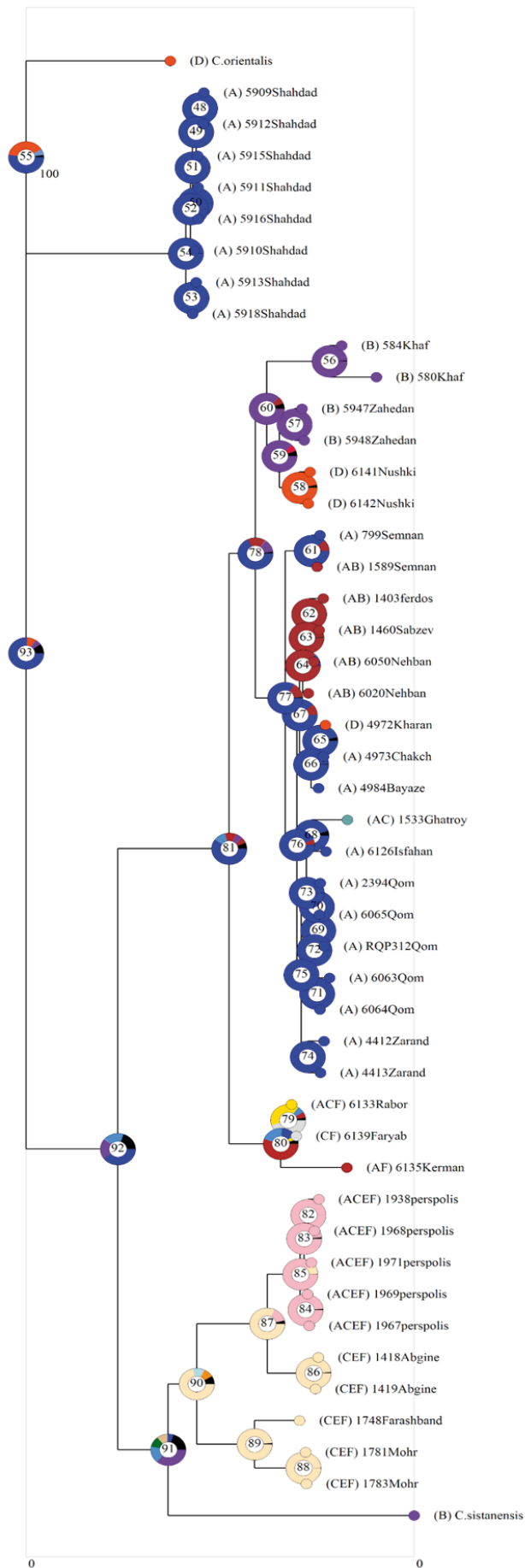


Figure S4. Ancestral area reconstructions in RASP; according to BBM method.